Instruction Manual for KEIHIN PC18 Carburetor Kit

Item Nos		Applicable models and Frame Nos
03－05－321	(Carburetor kit)	6V DAX50 ：ST50-1000001～ (except for 6300022～6346265)
03－02－0451	(Manifold set)	6V DAX 70 ：ST70-1000001～
		12V DAX ：AB26-1000001～

・Thank you for purchasing one of our TAKEGAWA's products. Please strictly follow the following instructions in installing and using the products.
・Before fitting the products, please be sure to check the contents of the kit. Should you have any questions about the products, please kindly contact your dealer.

◎ **Please note that, in some cases, the illustrations and photos may vary from the actual hardware.**

Please read the following instructions carefully before installation

◎ We do not take any responsibility for any accident or damage whatsoever arising from the use of the products not in conformity with the instructions in the manual.
◎ We shall be held free from any kind of warranty whatsoever of products other than this product if the glitch takes place on the other products than this one after the installation and use of this product.
◎ If you make alterations to the product, we shall be held free from any guarantee of the product.
◎ You are kindly requested not to contact us about the combination of our products with other manufacturers'.
◎ For installation of this Kit on a 6V motorcycle, a high throttle set is additionally required.
◎ A standard air cleaner cannot be equipped together with this product. The engine will go wrong if the engine gets wet. So, please refrain from running in the rain. Besides, before washing your vehicle, cover the carburetor with a plastic sheet or the like to prevent water from getting into the carburetor.
◎ The carburetor of this Kit is shipped at the basic setting. Setting should be adjusted according to parts to be used. Re-set the carburetor to meet your engine.
◎ Be sure to do the work referring to the right HONDA genuine parts service manual for the above-mentioned applicable model.

⚠ CAUTION The following show the envisioned possibility of injuries and damages to human bodies and property loss as a result of disregarding the following cautions.

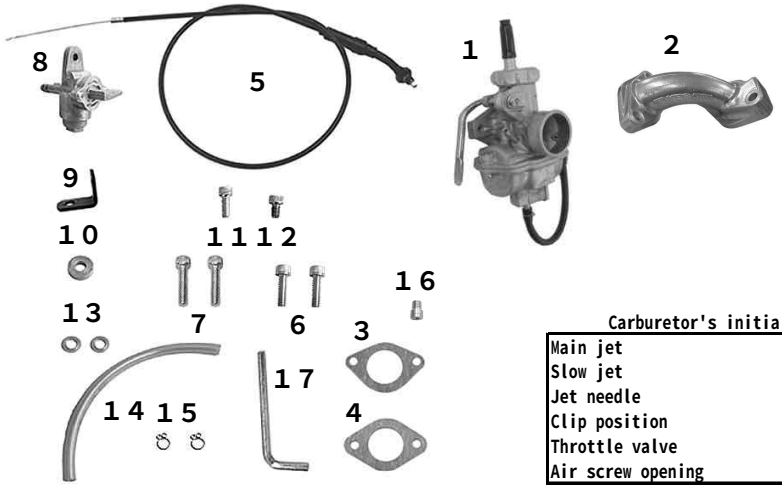
- Always use a torque wrench to screw bolts and nuts tight and securely to the specified torque. (Improper torque could cause these parts to get damaged or fall off.)
- Work only when the engine and the muffler are cool at below 35 degrees C. (Otherwise, you will burn yourself.)
- Prepare right tools for the work, and do the work in the proper and right way. (Otherwise, improper work could cause breakage of parts or injuries to yourself.)

⚠ WARNING The following show the envisioned possibility of human death or serious injuries to human bodies as a result of disregarding the following cautions.

- Those who are technically unskilled or inexperienced are required not to do the work. (Improper installation could lead to a driver's falling down or accidents as a result of parts breakage.)
- Before riding, always check every section for oil leak and slack in parts like screws. Besides, when you notice something abnormal with your motorcycle while riding down a road, stop riding immediately and park your motorcyle in a safe place to check. (Otherwise, the abnormaility could lead to an accident.)
- Always drive the engine in a well-ventilated place, and do not switch the engine on in an airtight place. (Otherwise, you will suffer from carbon monoxide poisoning.)
- Before doing work, place the motorcycle on level ground to stablize the position of your motorcycle for safety's sake. (Otherwise, your motorcycle could fall down and injure you while you are working.)
- As gasoline is highly flammable, never place it close to fire. Make sure that nothing flammable is near the gasoline. Since vaporized accumulation of gasoline is at the high risk of explosion, work in a well-ventilated place.

◎ Please be informed that, mainly because of improvement in performance, design changes, and cost increase, the product specifications and prices are subject to change without prior notice.
◎ This manual should be retained for future reference.

～Kit Contents～



Carburetor's initial settings	
Main jet	# 92
Slow jet	# 35
Jet needle	2CKRP
Clip position	3rd.
Throttle valve	# 28D
Air screw opening	3/4

No.	Parts Names	Qty
1	Carburetor assembly	1
※ 2	Inlet pipe	1
※ 3	Carburetor gasket	1
※ 4	Inlet pipe gasket	1
5	Throttle cable 810	1
※ 6	Socket cap screws 6x20	2
※ 7	Socket cap screws 6x25	2
※ 8	Fuel cock	1
※ 9	Fuel cock stay	1
※ 10	Collar	1
※ 11	Socket cap screw 6x15	1
※ 12	Socket cap screw 6x10	1
※ 13	6mm washers	2
※ 14	Fuel hose	1
※ 15	Hose clips	2
16	Main jet #85	1
※ 17	5mm hex' spanner	1

※ marks indicate the contents of a manifold kit.

Nov./08/ 08

Installation Procedure

Please check the contents of this kit.

(Preparation)

⚠CAUTION: Make sure that the engine and the muffler are cold enough!!
Stabilize the vehicle!!

※Since the fuel cock will be detatched, the fuel in the tank should be as little as possible before installation.

1. After making sure that the fuel cock is closed, open a drain cock on the carburetor, and drain the gasoline from the float chamber to a tray or something.

2. Unfasten a pan screw and detach the fuel cock from the carburetor.

3. Remove the top cap.

Unscrew the air-cleaner mounting bolt(s) and the inlet-pipe mounting bolt(s), and remove the carburetor with the inlet pipe attached.

※Be careful not to let any foreign materials fall into the intake port.

4. Remove the air cleaner mounting bolt(s) and nut(s), and take out the air cleaner case from the frame.

5. Unscrew the pan screw(s) on the throttle housing and take out the throttle cable.

※ Be sure to keep the throttle housing and pan screw(s) for re-use.

6. Keep those removed parts in a bag or the like. Wipe off dirts and old grease.

(Installation)

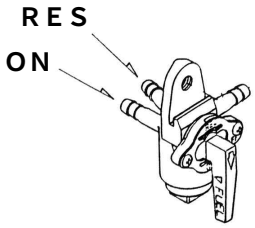
⚠ CAUTION: Be sure to tighten to the specified torque with a torque wrench.

1. Install the fuel cock stay to the fuel cock with an M6x10mm socket cap screw (midium) and a 6mm washer.
Specified torque=**10 N・m (1.0 kgf・m)**

Insert a collar to the threaded hole in which the air-cleaner mounting bolt was fixed, and install a fuel cock stay with a 6x15 mm socket cap screw(s) and a 6 mm washer(s).
Specified torque=**10 N・m (1.0 kgf・m)**

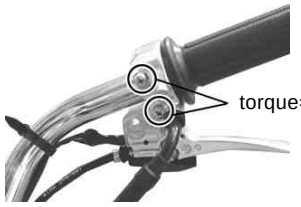
2.Pull out the fuel tubes and reconnect them, being careful of the oil leak. The fuel tube with vertical lines is the one for reserve tank side.

※ If the tubes shows an indication of exhaustion such as wear-out and crazings, replace them with new ones.



3. Temporarily attach the throttle cable to the under throttle housing, and connect the inner cable with the throttle pipe.

4. After applying grease to the sliding surface of the throttle, install the throttle housing. Then tighten the pan screws.
Specified torque=**8 N・m (0.8 kgf・m)**

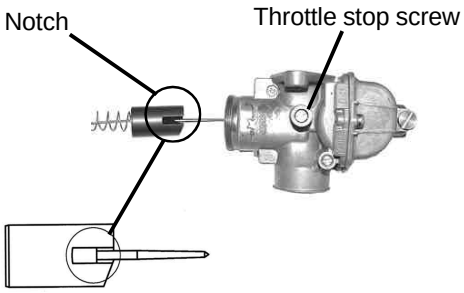


5. Detatch the top cover of the kit's carburetor, and remove the throttle valve spring and the throttle valve.

6. Place the carburetor gasket between the carburetor and the inlet pipe, and fix it with two M6x20mm socket cap screws and two 6 mm lock nuts.
Specified torque=**10 N・m**
(1.0 kgf・m)

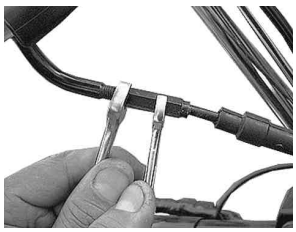
7. Drag the throttle cable up to the carburetor but not by sheer force. Attach the carburetor top to the throttle cable, and connect the inner cable with the throttle valve while compressing the throttle valve spring.

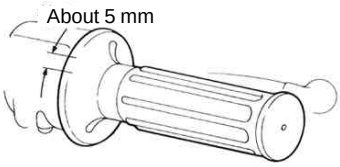
8. Align the notch on the throttle valve in the direction of the throttle stop screw, and then install it to the carburetor.



9. Place the inlet pipe gasket between the cylinder head and the inlet pipe, and fix it with 6x25 mm socket cap screw(s).
Specified torque=**10 N・m**
(1.0 kgf・m)

10. Adjust the free play at the throttle grip to be about 5 mm by turning the adjuster of the throttle cable. See the figure below. Snap the throttle several times to make sure that the throttle moves smoothly without sticking and also to check that the valve is fully open.
※Also check that the throttle has free play even when the steering handle is turned all the way to the right or to the left.





11. After adjusting the length of the fuel hose, insert it into the fuel cock and carburetor, and attach two hose clips. Open the fuel cock and check each section for oil leaks. (Do not leave the cock open for a long time.)

12. Pull the choke lever to start the engine, and check each section for intake leak. Gradually pushing the lever back, warm up the engine till the revolution becomes smooth. And then push the lever back into the original location. If the motorcycle does not run idle, or it runs idle at high revolution after warming-up, adjust the revolution with the throttle stop screw.

13. Do settings in a safe place according to the specification of your vehicle with enough care.

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How to Set the Carburetor

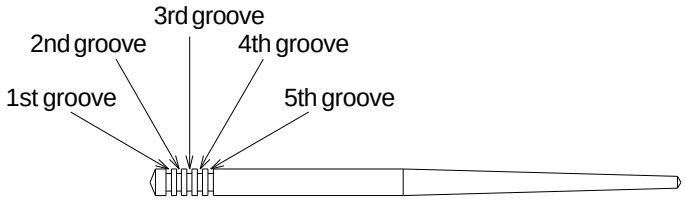
• When the carburetor does not match the engine and the engine fails, the engine failures are caused by either too dense or too lean air-fuel mixture.
• The engine failure symptoms for the engine are as follows:

When the air-fuel mixture is too dense:	When the air-fuel mixture is too lean:
• The explosion sound with a dull thud continues intermittently. • The engine malfunctions further if you use the choke. • The engine malfunctions when you warm it up. • The engine works well if the cleaner is detached. • The motorcycle belches dense (or, black) exhaust gas. • The plug smolders, getting blackened.	• The engine overheats somewhat. • The engine starts working well If you use the choke,. •The engine does not accelerate well. (No smooth acceleration) • Revolutions change, generating weak power. • The plug burns white.

※ Set the carburetor only after warming up the engine, and then test-drive. And use a plug with the right heat value.
※ Do the setting in the following manner, studying at what throttle opening position the engine starts failing.

○Jet needle (Throttle position at 1/4 - 3/4)

Whether or not the engine revolution is in proportion to the throttle operation
• When the acceleration is not smooth or even, make the air-fuel mixture dense.
• Make the air-fuel mixture lean when the engine revolution goes up heavily and belches black gas.
The mixture ratio at this throttle position can be adjusted by the location of E-ring in the grooves. The air-fuel mixture becomes dense as the location of the E-ring moves down from the 1st to the 5th groove.



○Main jet (The throttle position at 3/4 - 4/4)

The air-fuel mixture ratio at this throttle position can be adjusted by changing the number of the main jet. The larger the main jet numbers, the denser the mixture ratio becomes.
In view of the engine and muffler specifications, select the most appropriate main jet to get the highest revolutions.

○Pilot jet (First of all, please adjust the air screw.)

• In case you have given more than three turns to the air screw to tighten it, use a pilot jet with a small number.
• If you have tighten the air screw (clockwise) to the full, use a pilot jet with a larger number.
Check whether you have made a right choice of the pilot jet by seeing if the engine starts up revolving smoothly from the idling to running at slow speed.
• When the engine revolves up unevenly, the pilot jet number is too small. (At idle)
• When the motorcycle belches black exhaust gas and produces heavy exhaust sound, the pilot jet number is too big. (At idle)
• After replacing the pilot jet, you need to readjust the airscrew.

○ Air screw

The air screw adjusts the air mass flow at the time of engine's revolving at slow speed. (At idling)
• Give the air screw a right turn → The air-fuel mixture gets dense.
• Give the air screw a left turn → The air-fuel mixture gets lean.
Loosen the tightened air screw back to the 1.5-turn position. And then from this position, give to the airscrew a right or left turn of 1/4 to 1/2 till the engine revolves at the highest speed.
Loosen the idle stop screw till you get the steady idling revolutions. And once again adjust the position of the airscrew to get the highest revolutions.

●On how the barometric pressure, temperatures and humidity affect the setting:

• At highlands or at high altitudes, the barometric pressure and air density go down and the air gets into the carburetor in less amounts. This makes the air-fuel mixture dense which was adjusted at low altitudes.
• Under the weather conditions with very low temperatures, the air density increases, which makes the air-fuel mixture lean.
• Under the rainy and humid weather conditions, the air density decreases, which makes the air-fuel mixture dense.

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